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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/903,147	07/10/2001	Scott Edward Richmond	APT-002	1525

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EXAMINER

HA, DAC V

ART UNIT PAPER NUMBER

2634

DATE MAILED: 10/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/903,147

Applicant(s)

RICHMOND, SCOTT EDWARD

Examiner

Dac V. Ha

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 July 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2 and 3 is/are rejected.
- 7) ☒ Claim(s) 1 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claims 1-3 are objected to because of the following informalities:

Claim 1:

Line "compare the data" should be changed to "compare data".

Line 10, "said data input" should be changed to "said plurality of data inputs".

Line 12, "said data register" should be changed to "said plurality of data register".

Line 12, "said inputs" should be changed to "said plurality of inputs".

Line 13, "said inputs" should be changed to "said plurality of data inputs".

Line 15, "said data register" should be changed to "said plurality of register".

Line 15, "the data" should be changed to "data".

Line 19, "said primitive present signals" should be changed to "said primitive present signal".

Line 25, "said receive address" should be changed to "a receive address".

Line 25, "the difference" should be changed to "a difference".

Lines 29-30, "which of said outputs of said data registers" should be changed to "which of said data output of said plurality of data register".

Line 31, "said data registers" should be changed to "said plurality of data registers".

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Line 35, "said select input signals" should be changed to "said select input signal".

Lines 35-36, "said data registers" should be changed to "said plurality of data registers".

Line 36, "said receive clock" should be changed to "said receive clock signal".

Line "logic for supplying" should be changed to "control unit for supplying".

Lines 42-43, "logic to said multiplexer" should be changed to "control unit to said multiplexer".

Lines 43-44, "a Delete signal" should be changed to "the Delete signal".

Line 44, "an Insert signal" should be changed to "the Insert signal".

Line 45, "skip" should be changed to "to skip".

Line 45, "the sequence" should be changed to "a sequence".

Line 47, "delete signal" should be changed to "Delete signal".

Line 50, "transmit clock" should be changed to "transmit clock signal".

Claim 2:

Line 5, "said received data" should be changed to "the received data".

Line 5, "buffer" should be changed to "buffer (FIFO)".

Line 14, "the possibility" should be changed to "a possibility".

Claim 3:

Lines 6-7, "said received data" should be changed to "the received data".

Line 7, "buffer" should be changed to "buffer (FIFO)".

Line 16, "the possibility" should be changed to "a possibility".

Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. **Claims 2, 3** are rejected under 35 U.S.C. 102(b) as being anticipated by Cantoni et al. (US 5,146,477) (hereafter Cantoni).

Regarding claim 2, Cantoni explicitly and implicitly discloses all the claimed subject matter "means for receiving at a receive clock rate a stream of serial format data including data words and primitives which can be deleted without adverse effects, hereafter called nonessential primitives, and/or other nonessential data and storing said received data in a first in, first out buffer, each data word, primitive and piece of nonessential data stored at a different address; means for transmitting at a transmit clock rate the data words, primitives and nonessential data stored in said FIFO at selected addresses; means for determining which addresses in said FIFO store primitives or nonessential data that can be deleted; means for comparing a transmit address pointer in said FIFO which is incremented at said transmit clock rate to a receive address pointer in said FIFO which is incremented at said receive clock rate and, when the distance between said pointers indicates the possibility of overflow or underflow, controlling said means for transmitting so as to insert nonessential primitives

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or other nonessential data or to delete nonessential primitives or other nonessential data appropriately to avert either overflow or underflow" including writing to and reading from a FIFO (Fig. 3, element 18; col. 5, line 21) utilizing a write clock (Fig. 3, CLK1); a read clock (Fig. 3, CLK2); a write pointer and a read pointer (Fig. 3, element 20, 22). Further, the data includes stuffing field and stuffing control whereby stuffing bits can be deleted or inserted to prevent overflow or underflow of the elastic buffer (col. 4, lines 1-3; col. 6, lines 1-31). Also, by nature of operation of the FIFO, all data written into the FIFO should be stored at different locations. Moreover, even Cantoni does not explicitly disclose "means for comparing", Cantoni implicitly discloses that some sort of "comparing" mechanism must be utilized to determine whether the read pointer falls behind the write pointer.

Regarding claim 3, see apparatus claim 2.

Allowable Subject Matter

4. Claim 1 is allowed.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Vila et al. (US 6,757,348) disclose High-Speed Coordinated Multi-Channel Elastic Buffer.

Susnow (US 6,594,329) discloses Elastic Buffer.

Powell et al. (US 5,404,380) disclose Desynchronizer For Adjusting The Read Data Rate Of Payload Data Received Over A Digital Communication Network Transmitting Payload Data Within Frames.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dac V. Ha whose telephone number is 571-273-3040. The examiner can normally be reached on 5/4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on 571-272-3056. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Dac V. Ha', with a horizontal line underneath.

Dac V. Ha
Examiner
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